Research Working Papers

Endogenous Volatility at the Zero Lower Bound: Implications for Stabilization Policy

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At the zero lower bound, the central bank's inability to offset shocks generates higher expected volatility. The proper design of monetary policy is crucial to avoiding bad outcomes.

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At the zero lower bound, the central bank's inability to offset shocks endogenously generates volatility. In this setting, an increase in uncertainty about future shocks causes significant contractions in the economy and may lead to non-existence of an equilibrium. The form of the monetary policy rule is crucial for avoiding catastrophic outcomes. State-contingent optimal monetary and fiscal policies can attenuate this endogenous volatility by stabilizing the distribution of future outcomes. Fluctuations in uncertainty and the zero lower bound help our model match the unconditional and stochastic volatility in the recent macroeconomic data.

JEL Classification: E32, E52

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Related Research

- Basu, Susanto, and Brent Bundick. 2015. "Uncertainty Shocks in a Model of Effective Demand," Federal Reserve Bank of Kansas City, working paper no. 14-15, November.
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Brent Bundick is a Vice President and Economist in the Economic Research Department of the Federal Reserve Bank of Kansas City. In that role, he conducts research on the macroeconomy and serves as an advisor to the Bank's leadership on monetary policy and macroeconomic issues. He rejoined the Bank in 2014 after completing his Ph.D. in Economics from Boston College. Prior to graduate school, Brent worked in the Department as a Research Associate and Assistant Economist. He also holds a M.S. in Mathematics and Statistics from the University of Missouri – Kansas City and a B.A. in Economics and Mathematics from the College of William and Mary. Brent's research has examined the effects of uncertainty on the macroeconomy and how changes in central bank communication affect inflation, labor markets, and the broader economy.